ATTACHMENT A

R marks

By this Amendment, independent claims 1 and 9 have been amended to better define the invention. Other dependent claims have also been amended consistent with the changes to independent claims 1 or 9. It is submitted that the present application is in condition for allowance for the following reasons.

In paragraph 2 of the outstanding final Office Action, claims 1-18 (and presumably 19) were rejected under 35 USC § 103 as being unpatentable over the Larsen patent . However, for the following reasons, it is submitted that independent claims 1 and 9, and the remaining claims dependent therefrom, are all allowable over this reference.

By this Amendment, claims 1 and 9 have been amended to clearly indicate that it is the "variable" velocity of the pivoted squeeze plate and the squeeze plate which are being controlled. This change is considered redundant, but helps to more clearly indicate that each plate has a variable velocity and it is this variable velocity which is purposefully controlled (as also clearly indicated in the specification by the description of figures 5 and 6). Consistent changes have then been made to the various dependent claims.

In the Action, the examiner has replied to applicant's previous argument - that the Larsen patent does not disclose any control of velocity - by stating that a "velocity control means must be provided in Larsen in order to perform the independent movements of the pivoted squeeze plate and the squeeze plate". While it is true that the invention of the Larsen patent will effect different velocities of the two plates as the "pressure" and /or "position" of the plates is controlled (as clearly and specifically taught), this is **n t** the same as "controlling the velocity", or rather "controlling the variable velocity" as now

claimed in claims 1 and 9. In other words, the velocities of the two plates in the Larsen patent is a function of many factors including the position and pressure control (as well as including, for example, acceleration/deceleration caused by the pressure which is affected by inertia of the system, flow restrictions, etc.), so that while both the present invention and the invention of the Larsen patent do have velocities which "change", only the variable velocities of the present invention are "controlled" (as claimed). Therefore, the Larsen patent does not teach or suggest any "velocity control means" as alleged.

As now made even more clear with amended claims 1 and 9, the present invention provides a real variable velocity control which is neither taught or achieved nor made obvious by the Larsen patent. Therefore, both independent claims 1 and 9 are allowable over this reference; and similarly the remaining dependent claims dependent therefrom are also allowable.

Nonetheless, if the examiner desires some further language to define this control in order to better differentiate over mere "change" to effect allowance of the claims, some language could be added to the independent claims to refer to the variable velocities as "control parameters" or the like. Thus, if such language is desired, the examiner is invited to telephone the undersigned at the number listed next to the signature so that such added language can be easily agreed to.

In paragraph 4, claims 1-18 (sic) were also rejected under 35 USC § 102 as being anticipated by the Jacobsen patent. Later, in paragraph 5.b., the examiner noted that no evidence had been submitted to overcome this rejection by showing common ownership as alleged in the last response, so this rejection still stood. While applicant's records indicate that an Affidavit was submitted with the last response (after the claims listing), in

order to overcome this rejection in the most expedient manner, another copy of that affidavit is enclosed herewith.

For all of the foregoing reasons, it is submitted that the present application is in condition for allowance and such action is solicited.

ATTACHMENT B
Am ndm nts to th Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (currently amended) Method of producing mould parts on a string moulding apparatus, the apparatus comprising a moulding chamber between a squeeze plate and a pivoted squeeze plate in which both the squeezes plate and the pivoted squeeze plate can move in a direction towards each other and in a direction away from one another, said method comprising the steps of:

- introducing a compressible particulate moulding material in the moulding chamber and
- squeezing the moulding material by moving the squeeze plate and the pivoted squeeze plate towards one another to form a mould part, said squeezing step including the step of controlling a variable velocity of the movement of the squeeze plate and a variable velocity of the movement of the pivoted squeeze plate independent from one another during the squeezing step.

2. (currently amended) Method according to claim 1, wherein said controlling step controls the variable velocity of the squeeze plate and the variable velocity of the pivoted squeeze plate such that the squeeze plate and the pivoted squeeze plate move in a same direction during at least a part of the squeezing step.

3. (currently amended) Method according to claim 2, wherein said controlling step controls the variable velocity of the squeeze plate and the variable velocity of the pivoted squeeze plate such that either the squeeze plate or the pivoted squeeze pate is slowed down abruptly for creating a shock effect.

4. (currently amended) Method according to claim 2, wherein said controlling step controls the variable velocity of the squeeze plate and the variable velocity of the

pivoted squeeze plate such that the pivoted squeeze plate is reversed during the squeezing step.

5. (currently amended) Method according to claim 2, wherein said controlling step controls the variable velocity of the squeeze plate and the variable velocity of the pivoted squeeze plate such that the squeeze plate and the pivoted squeeze plate move towards one another with different velocities during at least a part of the squeezing step.

6. (currently amended) Method according to claim 1, wherein said controlling step controls the variable velocity of the squeeze plate and the variable velocity of the pivoted squeeze plate such that the squeeze plate and the pivoted squeeze plate move towards one another with equal velocity during at least a part of the squeezing step.

7. (currently amended) Method according to claim 1, wherein the variable velocity of the squeeze plate and the variable velocity of the pivoted squeeze plate are controlled according to a predetermined velocity versus time profile.

8. (currently amended) Method according to claim 1, wherein the moulding chamber includes a front into which the pivoted squeeze plate is introduced, and wherein the variable velocity of the pivoted squeeze plate is controlled such that the pivoted squeeze plate is positioned at the moulding chamber front at the end of the squeezing step.

9. (currently amended) String moulding apparatus for producing mould parts comprising:

- a squeeze plate and an associated pivoted squeeze plate between which a moulding chamber is defined and in which moulding chamber mould parts are produced by introducing a compressible particulate moulding material in the moulding chamber, and

- a moving means for moving the squeeze plate and the pivoted squeeze plate towards each other to squeeze the compressible particulate material in the moulding chamber into the mould part; and

a controller which controls said moving means so that a variable velocity of the squeeze plate and a variable velocity of the pivoted squeeze plate are controlled independently from one another as said moving means moves the squeeze plate and pivoted squeeze plate to form the mould part.

10. (previously presented) Apparatus according to claim 9, wherein said moving means includes a first actuator driving the squeeze plate and a second actuator driving the pivoted squeeze plate which said first and second actuators are independently powered.

11. (previously presented) Apparatus according to claim 9, wherein said moving means includes a first hydraulic actuator driving the squeeze plate which is powered by a first pump, and a second hydraulic actuator driving the pivoted squeeze plate which is powered by a second pump.

12. (previously presented) Apparatus according to claim 10, further comprising a first sensor for producing a signal corresponding to the velocity of the squeeze plate, and a second sensor for producing a signal corresponding to the velocity of the pivoted squeeze plate.

13. (currently amended) Apparatus according to claim 12, wherein said controller receives the signals from the first and second sensors and controls the variable velocity of the squeeze plate and the pivoted squeeze plate in response to these signals.

14. (previously presented) Apparatus according to claim 13, further including a number of operator selectable or automatically selectable predetermined velocity versus time profiles for the squeeze plate and the pivoted squeeze plate which are stored in the controller.

15. (previously presented) Apparatus according to claim 14, wherein the controller controls the speed of the squeeze plate and the pivoted squeeze plate during the squeezing of the mould according to one of the speed versus time profiles stored in the controller.

16. (previously presented) Apparatus according to claim 11, wherein the first pump and the second pump are variable displacement pumps, whereby displacements of the first pump and the second pump are set according to a respective signal from the controller.

17. (previously presented) Apparatus according to claim 19, wherein the controller, the first sensor, the first pump and the first actuator form a closed loop PID control system.

18. (previously presented) Apparatus according to claim 19, characterized in that the controller, the second sensor, the second pump and the second actuator form a closed loop PID control system.

19. (previously presented) Apparatus according to claim 11, further comprising a first sensor for producing a signal corresponding to the velocity of the squeeze plate, and a second sensor for producing a signal corresponding to the velocity of the pivoted squeeze plate.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Patent

In re patent application of: JACOBSEN

Serial No.: 10/049,676 Examiner: Lin

Filed: 15 February 2002 Art Unit: 1725

For: INDEPENDENT CONTROL OF SQUEEZE VELOCITY DURING FLASKLESS MOULDING Docket #: P07457US00/DEJ

AFFIDAVIT OF COMMON OWNERSHIP UNDER 37 CFR § 1.132

Commissioner for Patents
Washington, D.C.

S I R:

I, Jan Johansen

residing at, Frederikssund, Denmark

an officer as indicated below of DISA INDUSTRIES A/S,

do hereby declare:

That the invention of the above identified application (presently assigned to DISA INDUSTRIES A/S) and that of (1) US Patent 6,502,620 to Jacobsen et al. and (2) US Serial No. 10/271,538 (both also presently assigned to DISA INDUSTRIES A/S) were commonly owned at the time that the invention was made.

Date: 7/5-2003 Signature: _____

Name: JAN JOHANSEN

Title: PRESIDENT.